

CLAIMS

1. An apparatus comprising:

- 5 a. a client application which generates a service request;
- b. a service application responsively coupled to said client application which responds to said service request;
- c. a communication class library which regulates communication between said client application and said service application;
- 10 d. a security facility embedded within said communication class library; and
- e. wherein said security facility is automatically activated by said service request.
2. The apparatus of claim 1 wherein said security facility further comprises an encryption object.
- 15 3. The apparatus of claim 2 wherein said security facility further comprises security support provider interface.
4. The apparatus of claim 3 wherein said security facility further comprises a decryption object.
- 20 5. The apparatus of claim 4 further comprising a user terminal responsively coupled to a data base management system via a publically accessible digital data communication network and wherein said client application is located within said user terminal and said service application is

located within said data base management system.

6. A method of handling a service request from a client application to a service application comprising:

- 5 a. embedding a security facility within a communication class library;
- b. generating a service request within said client application;
- c. transferring said service request from said client application to said service application;
- d. receiving said service request by said service application;
- 10 e. honoring said service request by said service application; and
- f. automatically implementing security functions from said embedded security facility during said step which honors said service request.

7. A method according to claim 6 further comprising a context token transferred from said client to said service application identifying required security functions from said embedded security facility.

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8. A method according to claim 7 wherein said transferring step further comprises transferring said service request to said service application via a publically accessible digital data communication network.

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9. A method according to claim 8 further comprising a user terminal wherein said client application is located within said user terminal.

10. A method according to claim 9 further comprising a data base management system wherein said service application is located within said data base management system.

11. An apparatus comprising:

- 5 a. means for generating a service request requiring security functions;
- b. means responsively coupled to said generating means for honoring said service request while providing said security functions; and
- c. means responsively coupled to said honoring means for embedding a security facility within a communication class library which provides said security functions.

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12. An apparatus according to claim 11 further comprising means for uniquely identifying said security functions via a context token.

13. An apparatus according to claim 12 wherein said context token is transferred to said

15 honoring means from said generating means in association with said service request.

14. An apparatus according to claim 13 wherein said honoring means further comprises a data base management system.

20 15. An apparatus according to claim 14 wherein said generating means further comprises a user terminal.

16. In a data processing system having a client application which generates a service request requiring security activity responsively coupled to a service application, the improvement comprising:

- a. a security facility embedded within a communication class library responsively coupled to said service application; and
- b. a context token which specifies said security activity to said security facility.

17. The improvement according to claim 16 wherein said context token is transferred from said client application to said service application along with said service request.

18. The improvement according to claim 17 further comprising a user terminal containing said client application.

19. The improvement according to claim 18 further comprising a publically accessible digital data communication network responsively coupled between said user terminal and said service application.

20. The improvement according to claim 19 further comprising a data base management system containing said service application.

21. An apparatus comprising:

- a. a user terminal which has a client application which generates a service request;

- b. an enterprise data base management system having a service application responsively coupled to said client application via a publically accessible digital data communication network which responds to said service request;
- c. a communication class library which regulates communication between said client application and said service application;
- d. a security facility embedded within said communication class library; and
- e. wherein said security facility has an encryption object and has a decryption object and has a security support provider interface and wherein said security facility is automatically activated by said service request.